Foreword

There has been an increasing interest in understanding the demand potential demand of natural gas and its implication in the East Asia Summit region. In 2016, this Economic Research Institute for ASEAN and East Asia (ERIA) study on the future natural gas demand was proposed by Japan during the 10th East Asia Summit Energy Ministers Meeting (EAS EMM). Focusing on ASEAN and India, the study estimates the size of the natural gas market on the demand side, and correspondingly derives the necessary investment in infrastructure on the supply side. Then, the challenges and policy options are drawn for both demand and supply sides.

An expanded demand in natural gas is expected to lead to increases in the fuel costs in the power generation sector, as it mostly substitutes cheap coal. However, this could be partly offset by a reduction in construction costs since natural gas-fired power plants have lower capital costs. Other sectors will see significant benefits in fuel costs as natural gas could be cheaper than oil products. A reduction in carbon emission is also expected in all sectors. To maximize the demand potential, various policies are, however, required. These include clear and coherent policies on the promotion of natural gas use, economic competitiveness of natural gas, support for developing the supply infrastructure, and institutional and capacity building. Volume I of this report is dedicated to the demand side analysis.

Meanwhile, by focusing on the supply side analysis, Volume II tries to identify the most suitable and feasible supply chain solutions based on the size of demand, main users of natural gas, technical constraints, geographical constraints, as well as available existing transport infrastructure such as roads, rails, and ports. Despite the number of existing and planned primary liquefied natural gas (LNG) terminals, more primary LNG terminals are needed by 2030. The study also shows that primary LNG terminals in ASEAN can encompass other countries' areas. Investment in the additional LNG supply chain by 2030 is estimated to hit US$81 billion. Thus, the study recommends that the cost of natural gas infrastructure be shared.

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